

(19) World Intellectual Property  
Organization  
International Bureau



(43) International Publication Date  
18 August 2005 (18.08.2005)

PCT

(10) International Publication Number  
**WO 2005/074528 A3**

(51) International Patent Classification<sup>7</sup>: **C07C 21/18**,  
A01N 29/02, A01K 31/02

(21) International Application Number:  
PCT/US2005/002617

(22) International Filing Date: 28 January 2005 (28.01.2005)

(25) Filing Language: English

(26) Publication Language: English

(30) Priority Data:  
60/540,612 30 January 2004 (30.01.2004) US

(71) Applicant (for all designated States except US): **PCBU Services, Inc.** [US/US]; 300 Delaware Avenue, Suite 1269, Wilmington, DE 19801 (US).

(72) Inventors; and

(75) Inventors/Applicants (for US only): **BRANDSTADTER, Stephan, M.** [US/US]; 3946 N. Washington Boulevard, Indianapolis, IN 47906 (US). **AMEDURI, Bruno** [FR/FR];

26, Rue Louis Roumieux, F-34090 Montpellier (FR). **KOSTOV, George, K.** [BG/FR]; App. 103, Res Le Mas Vaneau, 189, Rue Edmond Lautard, F-34080 Montpellier (FR).

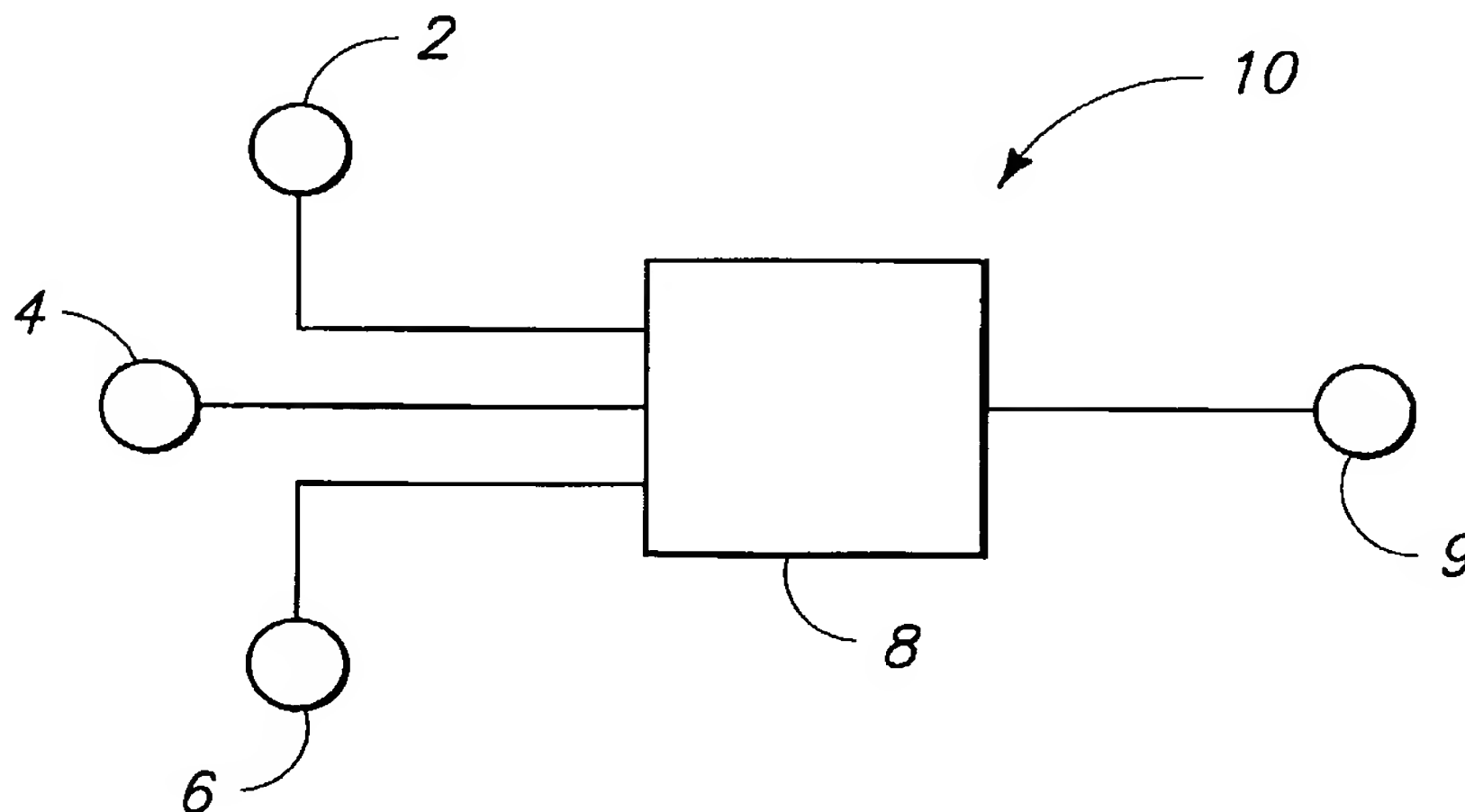
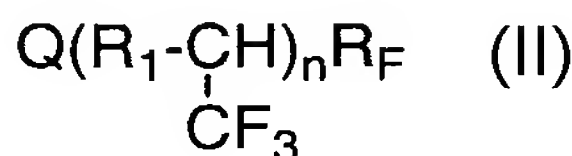
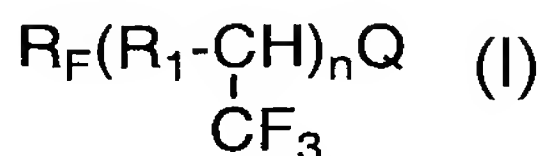
(74) Agents: **HYTA, Robert, C.** et al.; Wells St. John P.S., 601 W First Avenue, Suite 1300, Spokane, WA 99201-3828 (US).

(81) Designated States (unless otherwise indicated, for every kind of national protection available): AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, US, UZ, VC, VN, YU, ZA, ZM, ZW.

(84) Designated States (unless otherwise indicated, for every kind of regional protection available): ARIPO (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian (AM, AZ, BY, KG, KZ, MD, RU, TJ, TM),

[Continued on next page]

(54) Title: COMPOSITIONS, HALOGENATED COMPOSITIONS, CHEMICAL PRODUCTION AND TELOMERIZATION PROCESSES



(57) Abstract: Compositions are provided that can include  $R_F(R_T)_nQ$ , formula I (I), formula II (II), and/or  $R_{Cl}(R_T)_nH$ . The  $R_F$  group can have four fluorine atoms, the  $R_T$  group can include a C-2 group having a pendant  $-CF_3$  group,  $n$  can be at least 1, the  $R_1$  group can include a carbon atom, the  $R_{Cl}$  group can be  $-CCl_3$ , and the  $Q$  group can include one or more atoms of the periodic table of elements. Telomerization processes are also provided.



European (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG).

**Declarations under Rule 4.17:**

- *as to applicant's entitlement to apply for and be granted a patent (Rule 4.17(ii)) for all designations*
- *as to the applicant's entitlement to claim the priority of the earlier application (Rule 4.17(iii)) for the following designations AE, AG, AL, AM, AT, AU, AZ, BA, BB, BG, BR, BW, BY, BZ, CA, CH, CN, CO, CR, CU, CZ, DE, DK, DM, DZ, EC, EE, EG, ES, FI, GB, GD, GE, GH, GM, HR, HU, ID, IL, IN, IS, JP, KE, KG, KP, KR, KZ, LC, LK, LR, LS, LT, LU, LV, MA, MD, MG, MK, MN, MW, MX, MZ, NA, NI, NO, NZ, OM, PG, PH, PL, PT, RO, RU, SC, SD, SE, SG, SK, SL, SM, SY, TJ, TM, TN, TR, TT, TZ, UA, UG, UZ, VC, VN, YU, ZA, ZM, ZW, ARIPO patent (BW, GH, GM, KE, LS, MW, MZ, NA, SD, SL, SZ, TZ, UG, ZM, ZW), Eurasian patent (AM,*

*AZ, BY, KG, KZ, MD, RU, TJ, TM), European patent (AT, BE, BG, CH, CY, CZ, DE, DK, EE, ES, FI, FR, GB, GR, HU, IE, IS, IT, LT, LU, MC, NL, PL, PT, RO, SE, SI, SK, TR), OAPI patent (BF, BJ, CF, CG, CI, CM, GA, GN, GQ, GW, ML, MR, NE, SN, TD, TG)*

- *of inventorship (Rule 4.17(iv)) for US only*

**Published:**

- *with international search report*
- *before the expiration of the time limit for amending the claims and to be republished in the event of receipt of amendments*

**(88) Date of publication of the international search report:**

22 December 2005

*For two-letter codes and other abbreviations, refer to the "Guidance Notes on Codes and Abbreviations" appearing at the beginning of each regular issue of the PCT Gazette.*